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## TELETYPEWRITER EXCHANGE SERVICE

Teletypewriter Exchange service, or TWX, is an economical fast means of communication which is universally used by other radio networks and stations and which will be used for some IBS communications this fall. The service has now been installed at WKCR Columbia University, our New York key station (their number is NY 1-531). This memo is to acquaint you with the service in case you decide it would be a good idea for your station.

### General operation

The type of service that you are probably most familiar with is the one-way service used by press associations for transmission of their news copy to radio stations and newspapers. TWX service, however, is a two-way, exchange service very similar to telephone. It is operated by the same Bell System companies. The main difference is that it uses a teletypewriter instead of a telephone instrument. Each machine is connected to a local switchboard through which it can be connected to any other TWX subscriber in the country.

Each machine has a keyboard like that of a typewriter and will send as well as receive. Both parties have a complete written record of everything typed in both directions. Thus schedules, figures, and orders which require a written record are especially suited to TWX transmission. It is faster than telegraph, of course, since the message is reproduced at the receiving end at the same time it is sent.

### Charges

The charges for TWX, like those for telephone service, are based on distance and time, with the standard period of three minutes. After the first three minutes the rate is one-fourth of the initial rate for each succeeding minute. Radio stations and newspapers are exempt from the usual 25% federal tax, which is charged on telephone and telegraph messages with the exception of press telegrams. There is no monthly charge for TWX service and no installation charge but each machine must use a minimum of \$10 a month in message charges. Typical charges are shown on the attached chart.

### How to order

The telephone companies in many places are not particularly anxious to sell TWX service, and do not like to install machines unless they think that \$ 40 a month or more will be spent on tolls. Each applicant is interviewed by a phone company representative and these representatives will often discourage the applicant from placing an order. Nevertheless, if an order is placed the phone company must install the service if they have the facilities, and radio stations are entitled to preferred treatment where there are waiting lists.



### Conference calls

Conference calls, connecting more than two machines, are especially economical. Material which must be sent simultaneously to a number of points is well adapted to conference calls. The rate is lower than that for individual transmissions to several points.

### Unattended service

For an additional charge of \$ 3 per month, a machine may be connected so that it will receive messages when there is no one around to answer it. The message is typed out by the machine and remains there until someone picks it up. This is particularly valuable between locations which have a time difference.

### Automatic equipment

An automatic machine will record on a punched tape any message typed out on it. This tape can then be run through the machine and the message sent at maximum speed, no matter how slowly it is typed originally. The tape can be used more than once, and can be corrected before being sent. This service costs an extra \$ 25 a month and is probably not economical for us.

### How we use it

We are anxious to use TWX in place of telegraph and telephone where it is possible to do so. For network operations and news handling it is a necessity. In New York, for example, the service is used for delivery of incoming overseas messages and for sending material to Press Wireless for transmission, as well as for communication. We will have to have this service at certain major network points, and we suggest that all stations study whether it would be a valuable addition to their equipment and consider having it installed if the scale of operation justifies it.

Many of our stations may be able to arrange with a standard station in their town to handle TWX messages for them, since all major stations have this service. In order to avoid having these calls appear on the standard station's bill, we will accept such calls when sent to IBS "collect". If they concern only one station, however, they will be charged to that station's account.

Where IBS stations install their own TWX service, they may receive some calls from IBS "collect". The purpose of this is to fill up the \$10 monthly minimum on each machine. These charges may later be credited to the station's account.

For further information, we suggest that you contact the local phone company, or our New York office.

A table of comparative charges is enclosed.

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Operations engineer.